

## CONPROSYS Series Signal Tower Monitoring CPS-PAV-AExx Series



### Features

#### CPS-PAV-AES1-xx <Receiver Set >

1. The CONPROSYS controller (Individual purchase), which connects the EnOcean Alliance USB receiver, is available from a wide selection.
2. Simply select a transmitter ID and register it on the setting page to set up.
3. Any of the settings or operation can be done through a web browser. No special software is required to start monitoring.
4. The monitoring screen (Andon style display, Timeline bars, and Facility map) is ready to be used. Timeline bars graphically show the obtained data in chronological order. With CONPROSYS HMI controllers, the monitoring screen can be freely customized. Furthermore, using CONPROSYS VTC enables the user to process various tasks.
5. Up to 16 transmitters are configurable per Receiver.
6. An alert mail is sent to inform the user when an error occurs in real time. Mail notification can be sent up to 10 places.

\*The CONPROSYS controller (Individual purchase) is required for setup.

#### CPS-PAV-AE01-xx <Transmitter >

1. Quick setting! The transmitter can be added to the signal tower within 10 seconds. Up to five tiers of the light are manageable.
2. The matching holding rings (Φ40, 50, 60, 70) are available to set the receiver with the signal tower (LR series: 40mm pitch (Φ40, 50, 60, 70mm), LME series: 41.5mm pitch (Φ60mm)) of the PATLITE Corporation.
3. Adopting low power consumption wireless EnOcean standard enables the product to be powered by solar cell, and it realizes a wireless structure and provides simple installation.
4. The transmitter operates by a solar cell during the day-time (under lighting) and by an industrial lithium battery during the night-time (in darkness). The battery maximum life is six years\*1
5. Owning its high environmental resistance (IP65 protection, operation capability in the temperature between -20 and + 60°C), it is suited for even the harsh environments such as in the factories with moisture and dust.

\*1 It is a lifetime when the product runs for 12 hours by a solar cell in the day time (under lighting), and 12 hours by an industrial lithium battery in the night time (in darkness).

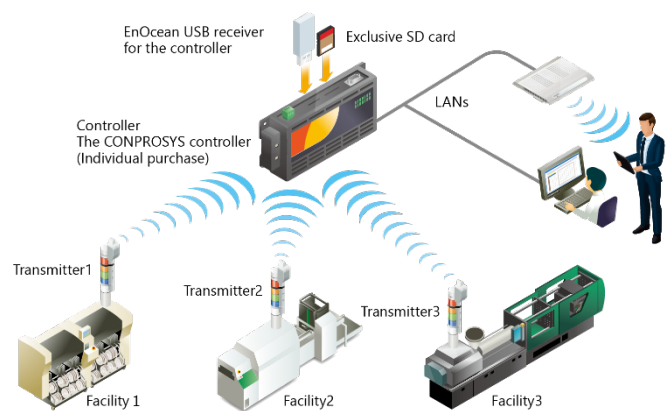
This product is a signal tower light sensor which can be attached to the signal tower of the PATLITE Corporation. \*1 and remotely monitors the operation in the facilities. It is designed to meet the IP65 standard and ensures waterproofing and dust-proofing. Adopting the sub-giga band and low power consumption wireless EnOcean standard enables the product to be powered by solar cell and an auxiliary battery, and realizes a wireless structure and simple installation.

Graphical display and logging functions for the lighting status of the signal tower can be added with the specified CONPROSYS controller.

\*1 Refer to the specification table for applicable signal towers.

- \* The contents in this document are subject to change without notice.
- \* Visit the CONTEC website to check the latest details in the document.
- \* The information in the data sheets is as of July, 2023.

### System Components

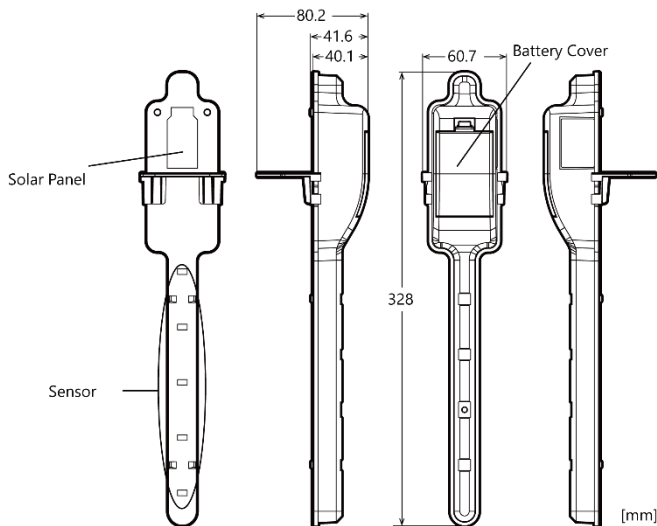


### Packing List

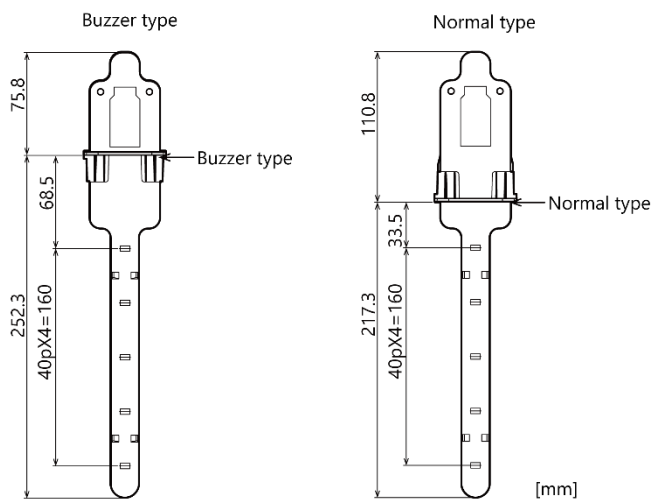
- Product...1  
Cable Tie(2 types) Small diameter type...1, Large diameter type...2  
Supporting Parts...1  
Holding Ring lower part (4 types) ...1 per product  
Holding Ring upper part (4 types) ...1 per product  
Lithium Primary Battery...1 (Equipped)  
SD Card \*1...1  
USB Receiver \*1...1  
Product Guide...1  
Warranty Certificate...1  
Serial Number Label...1

\*1 Included in the CPS-PAV-AES1-US model only.

## Nomenclature of Product Components and Physical Dimensions



The place to set the supporting parts for each type.



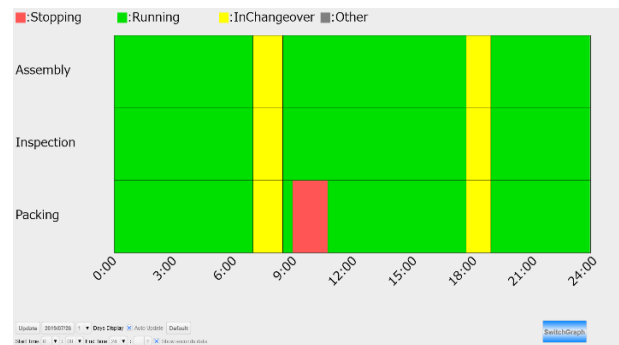
## Web Browser Display Screen - samples

### Condition monitoring (Andon)



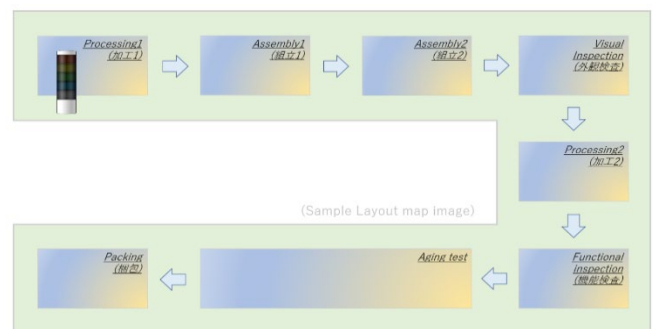
This screen displays the running condition of the facility in real time with Andon Style. The radio strength level and battery level of the transmitter can be viewed as well.

### Condition Monitoring (Timeline Bars)



This screen displays the running condition in the facility of the selected day and time in chronological order, and enables the user to recognize the time tendencies when errors occur.

### Transmitter Map Screen



This screen displays a map which shows transmitters placed on the facility. First, register Facility Map of the user. Then, set the signal tower light sensor items, images, and a meter to manage the facilities all together.

## Support Controller

Series Name	Model	model
<b>M2M Controller Series</b>		
Integrated Type	CPS-MC341-ADSC1-111	Multi I/O
	CPS-MC341-ADSC1-931	Multi I/O with built-in OPC UA server and MTConnect Adapter & Agent
	CPS-MC341-ADSC2-111	Multi I/O with additional RS-485
	CPS-MC341G-ADSC1-110	Multi I/O with 3G WAN (Global)
	CPS-MC341-DS11-111	Digital I/O with RS-232C
Configurable Type	CPS-MCS341-DS1-111	CPU module
	CPS-MCS341-DS1-131	CPU module + OPC UA server + MTConnect
<b>Gateway Series</b>		
Integrated Type	CPS-MG341-ADSC1-111	PLC data logger + Multi I/O
	CPS-MG341-ADSC1-931	PLC data logger + Multi I/O with built-in OPC UA server and MTConnect Adapter & Agent

## Specification

Item		CPS-PAV-AES1-US	CPS-PAV-AES1-EU
		CPS-PAV-AE01-US	CPS-PAV-AE01-EU
Wireless specification	Standard	EnOcean	
	Frequency	902.875MHz	868.3MHz
	Transmission output	1dBm [typ.]	-
	Operating Frequency and MAX Target Power	-	5dBm(EIRP)±2.5dB
	Data rate/modulation type	125 kbps/FSK	
	Antenna shape	Helical antenna	
	Communication distance	300m (Values measured in an open space)	400m (Values measured in an open space)
	The number of sensors can be set	16	
Power specification	Power generation element	Solar cell (ECS300)	
	Auxiliary battery	Industrial lithium battery (BR-1/2AA: Panasonic)	
	Battery life	Up to three years *1	
Sensor	Detect wavelength	400nm - 800nm (sensor specification)	
	Sensitivity adjustment method	Adjustment (16 levels)	
	Light-on illuminance	1000lx or more *2	
	Light-off illuminance	600lx or less *2	
	Blinking detect frequency	0.4Hz - 2.8Hz	
	The number of sensors	Up to 5 tiers	
Resistance environment	Operating ambient temperature	-20°C - +60°C	
	Operating ambient humidity	10 - 90%RH (No condensation)	
	Vibration resistance	10 - 58.1Hz /semi-amplitude vibration 0.15mm, 58.1 - 150Hz/20m/s 80 minutes each in X, Y, and Z directions	
	Shock resistance	15G half-sine shock for 11ms in X, Y, and Z directions (JIS C 60068-2-27-compliant, IEC 60068-2-27-compliant)	
Applicable signal tower		Produced by PATLITE Co., Ltd. Signal Tower LR4, LR5, LR6, and LR7 series *3	
Physical dimensions (mm)		328(W) x 60.7(D) x 41.6(H)	
Weight		150g	
Standard		IP65, RoHS-compliant, FCC class A	IP65, CE Marking (RE Directive, RoHS Directive), UKCA

- \*1 It is a lifetime when the product is used with the economy drive mode (slide switch m1 setting) under the condition of 25 deg. C, for 12 hours in the day time (800lx) and 12 hours in the night time (0lx).  
Note that the product can semi-permanently operate with the economy drive mode (slide switch m1 setting) under the condition of 800lx at all times.
- \*2 It indicates the value measured by the illuminance meter (CENTER530) for the emission of the white LED (NSSL157AT-H3).
- \*3 This product can be used along with the signal towers fit in the listed specifications (lighting section 40mm - 41.5mm pitch, and φ40-φ70).  
If you intend to use the different signal tower from the listed ones, please try the engineering sample before purchasing.

## The list of models

### Receiver Set

Model	Name	Regions
CPS-PAV-AES1-JP	Japan model	Japan
CPS-PAV-AES1-US	US model	The United States
CPS-PAV-AES1-EU	EU/China model	EU member states, England, Switzerland, Norway, Iceland, China

### Transmitter

Model	Name	Regions
CPS-PAV-AE01-JP	Japan model	Japan
CPS-PAV-AE01-US	US model	The United States
CPS-PAV-AE01-EU	EU/China model	EU member states, England, Switzerland, Norway, Iceland, China